

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A method for adjusting at least one of a scanning frequency and a scanning phase of an analog/digital converter of an image-reproducing device, wherein the image-reproducing device has a digitally controlled display for displaying an image of a predefined number of lines and a predefined number of pixels per line; wherein the digitally controlled display receives digital image data from the analog/digital converter; wherein the analog/digital converter generates the digital image data by scanning with a scanning signal having the scanning frequency and the scanning phase of a predefined analog video signal; and wherein the digital image data is buffered in an image memory; the method comprising:

applying the predefined analog video signal to the image-reproducing device;

comparing the digital image data buffered in the image memory with predefined data that corresponds to the predefined analog video signal; and

changing the scanning frequency until the comparison of the digital image data with the predefined data results in a predetermined match;

detecting a respective brightness value in a pixel by means of the scanning signal;

measuring the respective brightness value;

increasing the scanning phase of the scanning signal until the brightness value of the pixel changes so as to determine a first boundary value;

resetting an original phase;

subsequently decreasing the original phase until the brightness value of the pixel changes again so as to determine a second boundary value; and

adjusting the scanning phase of the scanning signal so as to correspond to an average value of the first and second boundary values,

wherein a predetermined number of consecutive pixels of a line of the test image is checked for a match with the predefined data.

2. (original): The method according to claim 1,

wherein the analog video signal corresponds to a test image that has a regular pattern in horizontal direction; and

wherein a marking is provided in an area of a right edge of the test image.

3. (original): The method according to claim 2,

wherein the regular pattern comprises pixels in a line that have alternating, different brightness values; and

wherein the marking comprises a plurality of equally bright pixels.

4. (original): The method according to claim 3, wherein the brightness values differ by a predetermined maximum value.

5. (original): The method according to claim 4, wherein the test image is adapted to a resolution, which is determined by the predefined number of lines and the predefined number of pixels per line that are set for the digitally controlled display.

6. (canceled).

7. (canceled).

8. (original): The method according to claim 2, wherein the marking is checked for a match with the predefined data.

9. (currently amended): The method according to claim ~~7~~1, further comprising:
if a match is determined between respective pixels of the test image and the predefined data, respectively increasing and decreasing the scanning phase of the scanning signal by approximately one quarter of a range that is determined by the first boundary value and the second boundary value; and
adjusting the scanning frequency, if a change in the respectively measured brightness value of a pixel occurs.

10. (currently amended): A method, comprising:
applying a predefined analog video signal to an image-reproducing device;
comparing digital image data that are buffered in an image memory with predefined data that corresponds to the predefined analog video signal; and
changing a scanning frequency until the comparison of the digital image data with the predefined data results in a predetermined match,
detecting a respective brightness value in a pixel by means of the scanning signal;
measuring the respective brightness value;

increasing a scanning phase of a scanning signal until the brightness value of the pixel changes so as to determine a first boundary value;
resetting an original phase;
subsequently decreasing the original phase until the brightness value of the pixel changes again so as to determine a second boundary value; and
adjusting the scanning phase of the scanning signal so as to correspond to an average value of the first and second boundary values,
wherein a predetermined number of consecutive pixels of a line of a test image is checked for a match with the predefined data.

11. (currently amended): A device for adjusting at least one of a scanning frequency and a scanning phase of an analog/digital converter of an image-reproducing device, wherein the image-reproducing device has a digitally controlled display configured to display an image of a predefined number of lines and a predefined number of pixels per line; wherein the digitally controlled display is configured to receive digital image data from the analog/digital converter; wherein the analog/digital converter is configured to generate the digital image data by scanning with a scanning signal having the scanning frequency and the scanning phase of a predefined analog video signal; and wherein the digital image data is buffered in an image memory, the device comprising:

an image generator configured to generate the predefined analog video signal, which is applied to the image-reproducing device and converted into the digital image data; and
a memory configured to store predefined data for comparison with the digital image data; and

a processor configured to
detect a respective brightness value in a pixel by means of the scanning
signal;
measure the respective brightness value;
increase the scanning phase of the scanning signal until the brightness
value of the pixel changes so as to determine a first boundary value;
reset an original phase;
subsequently decrease the original phase until the brightness value of the
pixel changes again so as to determine a second boundary value; and
adjust the scanning phase of the scanning signal so as to correspond to an
average value of the first and second boundary values,
wherein a predetermined number of consecutive pixels of a line of a test image is
checked for a match with the predefined data, and
wherein the predefined data stored in the memory corresponds to the predefined analog
video signal.

12. (currently amended): A device, comprising:
an image generator configured to generate a predefined analog video signal, which is
applied to an image-reproducing device and converted into digital image data; and
a memory configured to store predefined data for comparison with the digital image
data; and
a processor configured to

detect a respective brightness value in a pixel by means of the scanning signal;

measure the respective brightness value;

increase a scanning phase of a scanning signal until the brightness value of the pixel changes so as to determine a first boundary value;

reset an original phase;

subsequently decrease the original phase until the brightness value of the pixel changes again so as to determine a second boundary value; and

adjust the scanning phase of the scanning signal so as to correspond to an average value of the first and second boundary values,

wherein a predetermined number of consecutive pixels of a line of a test image is checked for a match with the predefined data, and

wherein the predefined data stored in the memory corresponds to the predefined analog video signal.